

Plex 3/8/2018 3:08 PM Date DuBois, Paschal

PO No	Supplier Item No	Line Rel	Purchase Terms	Description	Item No	For Project	Equipment ID	Order No	Received Due	Quantity	Job No	Container No	Counting Status	Stock Date	Receive Date	Price/Unit	Avg Price	Days Past Due
PO03125 MESS02-	VC	1	Net 30	1410 Steel Bar	1250X1.500	1.000 X 1.250 :	1.000X1.250	1.000X1.250	6/3/2018	6	SO49427	SO49427	STOCK	3/8/2018	S 13.07 / ft	0		
		2																
		3																
		4																
		5																
		6																
		7																
		8																

## Purchasing Receipts

100 AM ADDITIVE: CHAMOMILE

PURCHASE ORDER  
PO039125

Tel (613) 632-5200  
Dart Aerospace Ltd.  
1270 Aberdeen St.  
Hawkesbury, ON  
K6A 1K7  
Canada

AEROSPACE  
**DART**

PURCHASE ORDER

Plex 2/27/18 8:06 AM darr.lavoie.chantal

\*\*\* Continued on Next Page \*\*\*

Item No.	Description	Qty	Qty. Deliver	B/O Qty
MP141H	4140 HTSR PLATE 1.00" THICK ***** FACTURE E-MAIL ***** SUPER IMPORTANT SUR LE PACKING SLIP INSCRIRE LES HEAT N	32	32	0
MP11441H	4140 HTSR PLATE 1.250" THICK HT,pm94384	46	46	0
MP11441H	4140 HTSR PLATE 1.250" THICK HT,pm94549	59	59	0
DT34083	MS TUB. 750" X .083 WALL MLS HT,pm94549	23	23	0
MR13841H	1X 23" HTSR ROU 1.375" DIA HT,15C1472	20	20	0
HR512	1X 20" R/L ***** ht,243795	4	4	0
SR234174	1X 48" ***** HT,22086418	6	6	0
ST174PH	1X 72" ***** HT,269468	6	6	0
SR334174	1X 72" ***** ST 17-4PH ROU 3.750 DIA COND. H1150	6	6	0

Tel.: 1 613 632-3336

Customer : 6323336  
 METAX SOLUTIONS INC  
 2625 BOUL JACQUES CARTIER EST  
 LONGBEUIL, QUÉBEC  
 J4N 1L7  
 Reference : P0039125  
 Order : 133100  
 Ship : PICK UP / PICK UP  
 Shipping Order : 07/03/2018  
 Ship To : DART AEROSPACE LTD  
 1270, ABERDEEN STREET  
 HAWKESBURY, ONTARIO  
 K6A 1K7  
 Same

Page : 2

Merchantile Received:

Package No :

Shipping :

Ref:

SHIP JOURNEY COLLECT  
jp

HT9sh0213-b202

Item No. Description Qty Qty. Delivei B/O Qty

Tel.: 1 613 632-3336 K6A 1K7 HAWKESBURY, ONTARIO

1270, ABERDEEN STREET J4N 1L7

DART AEROSPACE LTD

Same

Ship To

Customer: 632336

METAX SOLUTIONS INC 2625 BOUL JACQUES CARTIER EST Tel.: 450 641-3330 J4N 1L7 LONGBUEUIL, QUEBEC  
Order : 133100 Reference : PO039125 Ship : PICK UP / PICK UP

Shipping Order 07/03/2018

Ship To:

METAX SOLUTIONS  
2625 BOUL. JACQUES-CARTIER EST

Ship To:

METAX SOLUTIONS  
2625 BOUL. JACQUES-CARTIER EST

Sales Order: 218678	Product Description	MSP12500
Drop Ship Ref:	Customer PO: 44152-JF	Custmer PO#
	Shipped Pcs	Shipped Lbs
	1.00	1.801.00
	Black Ordred	0.00
	POLINE	
1-1/4 X 34 1/16" X 146 3/16" MARSHALL OY STANDARD DELUXE PLATE 4140/A2 PRE	MARSHALL OY STANDARD DELUXE	ASTMA-829
	DFRS Compaint	PLATE# 42424AB
	Country of Origin	SLOVENIA
BHN 301.00	PM HEAT#	94549
0.1600	Ni -	0.2950
0.1600	Si -	0.0005
0.4130 Mn -	P -	0.0070 S -
0.4000 Ni -	Cr -	0.0000 Cr -
0.0600 Mn -	C -	0.1600

Product Description	MSP12500	Shipped Pcs	Shipped Lbs	Back Ordered	PO Line
1-1/4" X 3 1/4" X 145 3/4" MARSHALLY STANDARD DELUXE PLATE 4140/42 PREH.	1.00	1,805.00	0.00		
MARSHALLY STANDARD DELUXE					
ASTM-A-829					
DFARS Compliant					
PLATE#: 424249B					
PM HEAT#:	94492				
Country of Origin	SLOVENIA				
C -	0.4200 Mn -	0.8030 P -	0.0070 S -	0.0005 Si -	0.2000 Ni -
Cr -	0.9900 Mo -	0.1600 Cu -	0.2470 V -	0.0380	0.2100

Product Description										Customer PO: 41152-JFE		Drop Ship Ref:	
										MSP10000		MSP10000	
1 X 34 1/8" X 145 3/4" MARSHALL STANDBRD DELUXE PLATE 4140/42 PREHARC	0.00	1.00	1446.00	Shipped Pos	Shipped Lbs	Back Ordred	PO LINE	DFA'S Compliant	ASTM A-829	PLATE#: 422309A	Country of Origin SLOVENIA	C - 0.4100 Mn - 0.7970 P - 0.0070 S - 0.0010 Cu - 0.1600 Mo - 0.9600 Ni - 0.2250 Si - 0.0370 V - 0.2160	Sales Order# 218678
1 X 34 1/8" X 146 3/16" MARSHALL STANDBRD DELUXE PLATE 4140/42 PREHARA	0.00	1.00	2,870.00	Shipped Pos	Shipped Lbs	Back Ordred	PO LINE	DFA'S Compliant	ASTM A-829	PLATE#: 423458A	Country of Origin SLOVENIA	C - 0.4000 Mn - 0.7640 P - 0.0100 S - 0.0005 Cu - 0.1500 Mo - 0.9600 Ni - 0.2200 Si - 0.0380 V - 0.2500	Product Description
2 X 34 3/16" X 146 3/16" MARSHALL STANDBRD DELUXE PLATE 4140/42 PREHARA	0.00	1.00	2,870.00	Shipped Pos	Shipped Lbs	Back Ordred	PO LINE	DFA'S Compliant	ASTM A-829	PLATE#: 423458A	Country of Origin SLOVENIA	C - 0.4000 Mn - 0.7640 P - 0.0100 S - 0.0005 Cu - 0.1500 Mo - 0.9600 Ni - 0.2200 Si - 0.0380 V - 0.2500	MSP20000
2 X 33 15/16" X 145 13/16" MARSHALL STANDBRD DELUXE PLATE 4140/42 PREH	0.00	1.00	2,842.00	Shipped Pos	Shipped Lbs	Back Ordred	PO LINE	DFA'S Compliant	ASTM A-829	PLATE#: 423941B	Country of Origin SLOVENIA	C - 0.4100 Mn - 0.7690 P - 0.0070 S - 0.0002 Cu - 0.1700 Mo - 0.9500 Ni - 0.1100 Si - 0.0340 V - 0.1520	AZ-30000
3 X 32 15/16" X 117 3/8" A2 PLATE	0.00	1.00	3,317.00	Shipped Pos	Shipped Lbs	Back Ordred	PO LINE	DFA'S Compliant	ASTM A-681-08	PLATE#: 423987A	Country of Origin USA	C - 0.4800 Mn - 0.7700 P - 0.0190 S - 0.0030 Cu - 1.0100 Mo - 5.2000 Ni - 0.1300 Si - 0.2340 V -	Product Description

## MANAGER QUALITY ASSURANCE

JOANNE DESPRES

Material did not come in contact with mercury while in our possession. Part of these notes, now extant, were recovered by the police.

The above data were transmitted from the manufacturer's Certificate of Test after verification to consumers and specialization requirements of the information on the certificate. All test results remain on file subject to examination. Test information on clinical mechanics are transmitted on the certificate after verification. The manufacturer's Certificate of Test after verification is transmitted to consumers and specialization requirements of the information on the certificate. All test results remain on the file subject to examination. Test information on clinical mechanics are transmitted on the certificate after verification.

## MECHANICAL PROPERTIES

COUNTRY OF ORIGIN : ITALY

CHEMICAL ANALYSIS

ASME SA193 GR B7 01	ASTM A434 GR BC 16	ASTM A962/A962M SEC C 16	ASTM A322 13	ASTM E45 13	ASTM A388 16	EN 10204 3.1	MIC 6016-16 16
ASTM A29 16	ASTM E112 13	ASTM A304 16	ASTM E10 15	ASTM E709 15	ASTM A751 14	ASTM A370 16	API 6A/ISO10423 PSL3
JDM AO Q-L-2	ASTM E112 13	ASTM A304 16	ASTM E10 15	ASTM E709 15	ASTM A751 14	ASTM A370 16	API 6A/ISO10423 PSL3
ASME SA193 GR B7 01	ASTM A434 GR BC 16	ASTM A29 16	ASTM E112 13	ASTM E709 15	ASTM A751 14	ASTM A370 16	API 6A/ISO10423 PSL3

ITEM: 506428  
Line Total: 101.06 LB  
HEAT: 243795  
1-3/8 RD X 20. B/L  
DESCRIPTION: 440/4142 HR HI BAR STRESS FREE 269/321 BHN

SOLD TO: METALUX SOLUTIONS INC. SHIP TO: METALUX SOLUTIONS (RIVE-SUD)  
VENDU A: EXPEDIE A:  
2625 BOUL. JACQUES CARTIER EST  
LONGUEUIL QC J4N 1L7  
2625 BOUL. JACQUES CARTIER EST  
LONGUEUIL QC J4N 1L7

506428

PART NUMBER/NUMERO DE PIECE

44279-丁

#### NUMERO DE COMMANDE DU CLIENT

5-MAR-2018  
Certification Date

Page 01 of 03

## CERTIFICATE OF TEST

MÉNAGEUR QUALITÉ ASSURANCE

control of ~~water~~

JOANNE DESPRES

Materials did not come in contact with mercury while in our possession/Par les personnes, nous certifions que le matériau

for completeness and specificity of the information on the credit facility. All test results remain on file subject to examination. Les informations ci-haut-mencinnes sont partielles et spécifiques au rôle joué par les prêteurs, nous certifions que le matériau couvert par ce rapport

STRAND CAST VACUUM DEGASSED MATERIAL IS FREE FROM MERCURY CONTAMINATION  
 NO WELD REPAIR PERFORMED ON MATERIAL  
 ULTRASONIC: YES  
 THERMAL TREATMENT: OK  
 AUSTENITIZE 1616 DEG F WATER X 122:  
 TEMPERED 1166 DEG F AIR X 143:  
 STRESS RELIEF 1094 DEG F X 143:  
 THE ABOVE WAS INSPECTED (BY THE MANUFACTURER) AFTER VERTIFICATION

SOLD TO: METRAUX SOLUTIONS INC. SHIP TO: EXPEDITE A: VENDU A: 2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7  
2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7  
METRAUX SOLUTIONS (RIVE-SUD) 2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1L7

506428

PART NUMBER/NUMERO DE PIECE

44279-J

NUMERO DE COMMANDE DU CLIE

Certification Date 5-MAR-2018

Page 02 of 03

## CERTIFICATE OF TEST

MANAGER QUALITY ASSURANCE  
GRANT DE LASURANCE QUALITE

JOANNE DESPRES

Waterval did not come in contact with mercury while in our possession/Pour Les personnes, nous certifions que le matériel connut par ce rapport reconnaît les spécifications détaillées ci-dessous.

If the above data were transmitted from the manufacturer's computer to the verifier's computer, all test results remaining on the verifier's computer would be subject to modification. Use of information contained in the verifier's computer would be limited to the information required to verify the test results. All other information contained in the verifier's computer would be deleted.

red : ratio = 60

DESCRIPTION: 4140/4142 HR HT BAR STRESS FREE 269/321 BHN  
1-3/8 RD X 20' R/L Line Total: 101.06 LB  
HEAT: 243795 ITEM: 506428 QUENCH WATER TEMP: BEFORE 86 DEG F AFTER 108 DEG F  
MACRO: OK MICRO: OK

SOLD TO: VENDU A:  
METTAUX SOLUTIONS INC. SHIP TO: EXPEDIE A:  
2625 BOUL JACQUES CARTIER EST  
LONGBUEUIL QC J4N 1L7  
2625 BOUL JACQUES CARTIER EST  
LONGBUEUIL QC J4N 1L7

CUSTOMER ORDER NUMBER	NUMBER DE COMMANDE DU CLIENT
Certification Date	DATE DE CERTIFICATION
5-MAR-2018	04/03/2018
InvoiCe Number	44279-J
S704138	704138
PART NUMBER/NUMERO DE PIÈCE	PIÈCE
506428	06428

## CERTIFICATE OF TEST

*S. Lafleur*

JOANNE DESPRES

Material did not come in contact with mercury while in our possession/Par les présentes, nous certifions que le matériau testé n'a pas été en contact avec le mercure.

Telle chose n'a pas été vérifiée dans le rapport de test après vérification des échantillons déclarés. Les informations ci-dessous sont fournis au client pour sa vérification. Ces informations sont communiquées dans le rapport de test.

# CERTIFICATE OF TEST

## CERTIFICATE DE TEST

CUSTOMER ORDER NUMBER / NUMERO DE COMMANDE DU CLIENT

PART NUMBER/NUMERO DE PRICE

44279-J

503415

SOLD TO: METTAUX SOLUTIONS INC. SHIP TO: EXPEDITEE:  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1L7

Invoice Number  
S704139CERTIFICATION DATE  
5-MAR-2018

Page 01 of 02

5-1/2 RD X 4 1/4 0" REMNANT ASTM A576  
Line Total: 350.3 LB

ITEM: 503415  
HEAT: 22086418

Specifications:  
ASTM A36  
ASTM A388/A388M 11  
ASTM E112 13  
ASTM E112 13  
ASTM E381 01  
EN 10204 3.1  
ASTM A675 GR 60  
ASTM 13015 ADD 7 16  
ASTM A29/A29M  
JDM AO QL2  
ASTM A29/A29M  
EN 10204 3.1  
ASTM E112 13  
ASTM A751 11  
ASTM A711/A711M 07  
ASTM A370 12A

## CHEMICAL ANALYSIS

COUNTRY OF ORIGIN : FOREIGN										MECHANICAL PROPERTIES
RCPT:	R352771									
YLD STR	PSI	ULT TENSILE STRENGTH	%ELONGATION	%REDUCTION IN AREA	BHN	HARDNESS	TEST	DESCRIPTION		
38119.0	67832.0	26.0	58.0	131						
0.003	0.0001	0.0005	0.001	0.004	CO					
0.002	0.12	0.007	0.025	0.004	N	B	0.0004			
0.17	0.68	0.17	0.012	0.031	0.07	0.05	0.02			
C	MN	SI	P	S	CR	NI	MO			
V	CU	SN	AL	TI	NB					

TEST	PSI	IN 02 IN	IN AREA	BHN	DESCRIPTION
YLD STR	PSI	IN 02 IN	IN AREA	BHN	TEST AFTER VERTIFICATION CERTIFICATE OF TEST

Telle chose n'a pas été vérifiée dans le rapport de test.

Les informations ci-dessous sont communiquées dans le rapport de test.

# CERTIFICATE OF TEST

# CERTIFICATE D'ESSAI

CUSTOMER ORDER NUMBER  
NUMERO DE COMMANDE DU CLIENT

Certification Date  
5-MAR-2018

Page 02 of 02

PART NUMBER/NUMERO DE PRICE  
44279-5

Invoice Number  
S704139

SOLD TO: VENDU A:  
METTAUX SOLUTIONS INC. SHIP TO:  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1J7  
5-1/2 RD X 414.0" (52.0") REMNANT  
HEAT: 22086418 ITEM: 503415  
Line Total: 350.3 LB

DESCRIPTION: 1018 HR BAR ASTM A576  
5-1/2 RD X 414.0" (52.0") REMNANT  
HEAT: 22086418 ITEM: 503415  
IDEAL DIAMETER: 11.09 IN GRAIN SIZE: 6

## CLEANLINESS

INGOT CAST		REDUCTION RATE 18.7 TO 1		VACUUM DEGASSED		NO WELD REPAIR PERFORMED ON MATERIAL		ULTRASONIC: YES	
A	B	C	D	THICK	THIN	MAX	MAX	MAX	MAX
645	2.0	1.5	0.0	0.0	0.0	0.5	0.5	0.5	0.5

## COMMENTS

chemistry cont:

as 0.0040, zr 0.0010, sb 0.0002, zn 0.0010

JOANNE DESPRES

Material did not come in contact with mercury while in our possession/Par les presentes, nous certifions que le materiel hallé possède toujours la même qualité de l'essai.

The above data were transcribed from the manufacturer's Certificate of Test after verification of the information contained in file subject to examination. All test results remain on file subject to examination. Les informations ci-dessous sont transmises au fabricant descriptif de l'essai. Tous certificats qui le matériau couvert par ce rapport spécifient les spécifications demandées ci-dessous.

Le vétérinaire recommande à l'essai. Les présentations faites ou may be punishable as a felony under federal statutes. Les informations transmises en connexion avec les résultats des essais sont punissables if they willfully conceal or fraudulently statement false to the results of the description of the specimen described herein, including any specification forming a part of the description. Part les présentations, tous certificats qui le matériau couvert par ce rapport spécifient les spécifications demandées ci-dessous.

Individual uses in support avec le résultat des essais sont punissables if they willfully conceal or false statements, or fraudulent statement false to the results of the description of the specimen described herein, including any specification forming a part of the description. Part les présentations, tous certificats qui le matériau couvert par ce rapport spécifient les spécifications demandées ci-dessous.

MANAGER QUALITY ASSURANCE  
GERANT DE LA SURENTE QUALITE

MANAGER QUALITY ASSURANCE

JOANNE DESPRES

Maintenant did not come in contact with mecury while in our possession/Par les personnes, nous certifions que le matériau convertit par ce rapport renicontre les spécifications décrises ci-dessous.

The above details were transcribed from the main architect's Certificate of Test after verification of the sample across different locations of the building. All test results remain on file subject to examination. It is recommended that the information on the certificate be kept in mind whenever tests are conducted after completion of the project.

GRAIN SIZE : 8

## Chemical Analysis

ASTM A564 COND H1150 17-4 HR RT BAR RD/S/E 6.0" (72.0") 2-3/4 HEAT: 269468  
Line Total: 121.26 UB  
ITEM: 527141  
SPECifications:  
ASTM A564 TYPE 630 10  
EN 10204 3.1  
ASME SA564 AMS 8 6875 B  
ASTM A484 16  
ASTM A370 17

SOLD TO: METTAUX SOLUTIONS INC. SHIP TO: EXPEDITE: VENDU À: METTAUX SOLUTIONS INC. (RIVE-SUD) 2625 BOUL JACQUES CARTIER EST LONGUEUIL QC J4N 1J7

527141

PART NUMERIC/NUMERO DE PIECE

5-MAR-2018  
Certification Date

Page 01 of 02

## CERTIFICATE OF TEST

MARQUAGE QUALITÉ ASSURANCE

JOANNE DESPRES

average neural did not come in contact with memory while in our possession/Par les présentations, nous croyions que le matériel posséderait par ce rapport rencontré les spécifications détaillées ci-dessous.

The above diagram illustrates the relationship between Test After certification for completeness and specific information requirements of the information on the certificate of Test after certification. Results remain on file subject to examination. These examinations and specific information requirements of the information on the certificate of Test after certification are conducted by certified auditors. All test results remain on file subject to examination. These examinations and specific information requirements of the information on the certificate of Test after certification are conducted by certified auditors. All test results remain on file subject to examination. These examinations and specific information requirements of the information on the certificate of Test after certification are conducted by certified auditors.

DESCRIPTI<sup>n</sup>ION: 17-4 HR RT BAR COND H1150 ASTM A564  
2-3/4 RD S/C 6<sup>1</sup>/<sub>2</sub>" ( 72.0" ) ITEM: 527141  
HEAT: 269468 Line Total: 121.26 LB  
MICRO: OK  
MACRO: OK  
MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL

SOLD TO: METALUX SOLUTIONS INC.      SHIP TO: EXPEDIE A:  
2625 BOUL JACQUES CARTIER EST  
LONGBUEUIL QC J4N 1L7  
VENDU A:  
METALUX SOLUTIONS INC.      SHIP TO: EXPEDIE A:  
2625 BOUL JACQUES CARTIER EST  
LONGBUEUIL QC J4N 1L7  
LONGBUEUIL QC J4N 1L7

PART NUMBER/NUMERO DE PIECE  
44279-J  
T376763  
Invoice Number

Certification Date  
5-MAR-2018

Page 02 of 02

**CERTIFICATE OF TEST**

# CERTIFICATE OF TEST

CUSTOMER ORDER NUMBER : 44279-J  
NUMERO DE COMMANDE DU CLIENT : 44279-J  
CUSTOMER ORDER NUMBER : 5-MAR-2018  
NUMERO DE COMMANDE DU CLIENT : 5-MAR-2018  
CERTIFICATE OF TEST

PART NUMBER/NUMERO DE PRICE : T376762  
VENDEDU A : INNOVACE Number : 44279-J  
SOLD TO : METTAUX SOLUTIONS INC. SHIP TO : EXPEDIE A :  
2625 BOUL JACQUES CARTIER EST  
LONGUEUIL QC J4N 1L7  
Description : 17-4 HR RT BAR COND H1150  
ASTM A564  
Line Total : 225.54 LB  
HEAT : 9SH0213-B202  
ITEM : 527145  
ASTM A564 TYPE 630 13  
ASME SA564 TYPE 630 13  
ASTM 5643 U  
ASTM A388 16A  
ASME SA564 TYPE 630 13  
CHEMICAL ANALYSIS

C  
0.01  
CU  
3.28  
NBT  
0.35  
0.57  
0.021  
0.001  
4.70  
15.28  
0.15  
SI  
MN  
P  
S  
NI  
CR  
MO  
RCPT : R407275  
COUNTRY OF ORIGIN : TAIWAN  
MECHANICAL PROPERTIES

DESCRIPITION	VLD STR	ULT TEN	%ELONG	%RED	HARDNESS	KSI	IN 02 IN	IN AREA	RC	COND H1150
			140.0	24.0	75.0					

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specific requirements of the examination. All test results remain on file subject to examination. Les informations ci-haut-mencinées sont couvert par ce rapport rencontre les spécifications que le matériau testé possèdent pour les présentations, nos certificats que le matériau testé couvre les spécifications indiquées sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. Pour les présentes, nous certifions que le résultat obtenu par ce rapport renvoie les spécifications détaillées ci-haut.

Le résultat de l'examen des essais fait dans les conditions fixées en vertu des lois fédérales peut être établi à la demande, ou l'ensemble des résultats. Les informations suivantes font partie du résultat de l'examen des essais du certificat qui convient pour ce rapport.

Le résultat de l'examen des essais fait dans les conditions fixées en vertu des lois fédérales peut être établi à la demande, ou l'ensemble des résultats. Les informations suivantes font partie du résultat de l'examen des essais du certificat qui convient pour ce rapport.

Le résultat de l'examen des essais fait dans les conditions fixées en vertu des lois fédérales peut être établi à la demande, ou l'ensemble des résultats. Les informations suivantes font partie du résultat de l'examen des essais du certificat qui convient pour ce rapport.

GRAIN SIZE : 6

JOANNE DESPRES

Materiel did not come in contact with mercury while in our possession/Par les presentes, nous certifions que le materiel couvert par ce rapport renconte les specifications de detectes ci-haut.

The above data were transcribed from the manufacturer's Certificate of Test after verification. All test results remain on file subject to examination. Les informations ci-haut mentionees sont transmises au certificat d'essais du manufacturier apres verification de l'etat complet des specifications inscrites sur le certificat. Nous hereby certify that the material involved by this report will meet the applicable requirements described herein, including any specification forming a part of the description. Pour les presentes, nous certifions que le materiel couvert par ce rapport renconte les specifications de detectes ci-haut.

Fake signatures en rapport avec le resultat des essais sont punissables en vertu des lois federales. Toute personne recoridg de fraude, frottois, ou fraudulent statement in connection with test results may be punishable as a felony under federal statutes. Les informations qui le resultat obtenu dans la verification de la conformite des detectes ci-haut.

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HEAT: 9SH0213-B202 ITEM: 527145  
ASTM A564 Line Total: 225.54 LB  
3-3/4 RD S/C 610" (72.0")  
Description: 17-4 HR RT BAR COND H1150  
MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
MICRO: OK  
MACRO: OK  
MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
MICRO: OK  
Macro: OK

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SOLD TO: METALUX SOLUTIONS INC. SHIP TO: METALUX SOLUTIONS (RIVE-SUD)  
VENDU A: 2625 BOUL. JACQUES CARTIER EST  
LONGBUEUIL QC J4N 1L7  
2625 BOUL. JACQUES CARTIER EST  
LONGBUEUIL QC J4N 1L7  
DESCRIPTIPTION: 17-4 HR RT BAR COND H1150  
ITEM: 527145  
ASTM A564  
Line Total: 225.54 LB  
3-3/4 RD S/C 610" (72.0")  
Description: 17-4 HR RT BAR COND H1150  
MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
MICRO: OK  
Macro: OK

-----

527145  
PART NUMBER/NUMERO DE PIÈCE  
44279-JT  
NUMBER OF ORDER NUMBER  
CUSTOMER ORDER NUMBER  
NUMERO DE COMMANDE DU CLIENT  
CERTIFICATION DATE  
5-MAR-2018  
Invoice Number  
T376762  
Page 02 of 02

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CERTIFICATE OF TEST  
CERTIFICATE D'ESSAIS

TEST CERTIFICATE ACC TO DIN 60049-13.1/B/EN: 10204: 3.1								
Customer: PO Number: 87-15955								
Description: A513T-14-SRA, DOM, Grade: 1020, Category: CARBON WELDED, Round, OD=0.750", ID=0.584", WT=0.083", Length=240", to 288"								
Part Number: 87-15955-17								
Steel Grade: 1020								
Product: TUBE								
Heat No: 15C1472								
Dimensions								
WT	2.108	0.083	0.0000	0.0000 IN	6,096.000 - 7,315.200 MM	240.000 - 288.000 IN		
OD	19.050	0.750	0.0000	0.0050 IN	1,698.371	5.244.000		
Mechanical Properties								
ELEMENTS	MIN	MAX	MIN	MAX	PROD	MIN	MAX	HARDNESS
Carbon (C)	0.180	0.2300	0.0800	0.1800		0.0350	0.0120	HRB
Manganese (Mn)	%	%	0.3000	0.3500		0.0350	0.0110	75.00
Silicon (Si)	%	%	0.1800	0.2300		0.0170	0.0120	75.00
Aluminum (Al)	%	%	0.0300	0.0800		0.0350	0.0120	75.00
Phosphorus (P)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Sulfur (S)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Nickel (Ni)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Chromium (Cr)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Copper (Cu)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Vanadium (V)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Molybdenum (Mo)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Titanium (Ti)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Calcium (Ca)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Columnbium (Cb)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Boron (B)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Nitrogen (N)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Zirconium (Zr)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Antimony (Sb)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Iron (Sn)	%	%	0.0180	0.0200		0.0180	0.0110	75.00
Remarks:								
We hereby Certify that the material described above conforms to Specification and Purchase Order.								
Product is free of Weld repair after has not come in contact with Mercury or any of its components.								
Manufactured in: INDIA								
Produced in: INDIA								
Any questions, Please email: TestReports@aaaris-ilc.com								

**aaaris** LLC  
7953 Washington Woods Dr.  
Dayton, OH 45459  
Phone: (937)573-4676 Fax: (702)926-4128  
4/30/2016 0000056606

**Material Test Report**

BILL Johnstone  
Quality Co-ordinator

*Bill Johnstone*

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

QC 18 INSPECTION	ENGINEERING SIGN OFF (if required)	INSPPECTED BY: <u>DAS</u>	SIGNED OFF BY: <u>AA</u>	DATE: <u>9-89 MAR 08 2018</u>
------------------	------------------------------------	---------------------------	--------------------------	-------------------------------

RECORD RESULTS BELOW					
CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.	TYPE OF MATERIAL	HR C	HR B	DUR A	DUR D
	SIZE OF TEST SAMPLE				WEBSTER
	HARDNESS / DUROMETER READING				

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT MATERIAL PER-M DRAWING	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS REGULATORY REQUIRE EXTRUSION REPORT	<input checked="" type="checkbox"/>	
TESTERS LOCATED IN THE QUALITY OFFICE		

MATERIAL CERT REC'D: YES DATE: MAR 08 2018  
 PO / BATCH NO.: 039125/500432

THICKNESS ORDERED: 5.500 QUANTITY RECEIVED: 4  
 THICKNESS RECEIVED: 5.500 SHEET SIZE ORDERED: 5.500  
 QUANTITY INSPECTED: 4 SHEET SIZE RECEIVED: 5.500  
 QUANTITY REJECTED: 0

# SPECIFICATION CONTROL DRAWING

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PURCHASE MATERIAL: AISI 1018-1025 ROUND BAR  
 SPECIFICATION: MIL-S-7097 OR ASTM A108  
 PART NUMBER: M1018-R<sup>D</sup><sub>DDD</sub> WHERE D.DDD = DIAMETER IN INCHES  
 DIA.

TOLERANCES:  
 PER ASTM A108 AS FOLLOWS:

SIZE	TOLERANCE
UP TO 1.5" INCL.	+0.000/-0.002
OVER 1.5" TO 2.5" INCL.	+0.000/-0.003
OVER 2.5" TO 4.0" INCL.	+0.000/-0.004
OVER 4.0" TO 6.0" INCL.	+0.000/-0.005
OVER 6.0" TO 8.0" INCL.	+0.000/-0.006

RELEASE  
2012-09-24  
*[Signature]*

B	REFORMAT, ADD ASTM A108, ADD TOLERANCES	CP	12.09.05
A	NEW ISSUE	DS	01.06.12
REV.	DESCRIPTION	BY	DATE
A	<b>DART AEROSPACE LTD</b>		
DESIGN	DS		
DRAWN	CP		
CHECKED	<i>A.P.</i>		
MFG. APPR.	<i>A.P.</i>		
APPROVED	<i>A.P.</i>		
DE APPR.	<i>A.P.</i>		
DATE	12.09.05	REV. B	
		SHEET 1 OF 1	
		SCALE	
		NTS	

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GC 18 INSPECTION		ENGINEERING SIGN OFF (if required)
INSPECTED BY:	DAS	SIGNED OFF BY:
		DATE: 9-89 MAR 8 2018

RECORD RESULTS BELOW						CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE	HRG	HRB	DUR A	DUR D	WEBSTER		

Testers located in the Quality Office

DESCRIPTION	NCR	CHECK (Y/N)	COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER MDRAWING	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REFT# TO LINK CERT	Y	N	
CORRECT MATERIAL IDENTIFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS MATERIAL REQUIRE THIS REPORT	Y	N	
CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.			

MATERIAL CERT REC'D:	3.750	THICKNESS RECEIVED:	3.750	QUANTITY RECEIVED:	6
PO / BATCH NO.:	Q38125/15049434	SHEET SIZE ORDERED:	6	QUANTITY INSPECTED:	6
DATE:	MARK U 8 2018	SHEET SIZE RECEIVED:	6	QUANTITY REJECTED:	0

MATERIAL: M17-A-H1150-A3,750 PO / BATCH NO.: Q38125/15049434 DATE: MARK U 8 2018

## MATERIAL RECEIPT INSPECTION FORM

# SPECIFICATION CONTROL DRAWING

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**PURCHASE MATERIAL:** 17-4 PH / S17400 / TYPE 630 SS ROUND BAR  
GRAIN MUST BE ALONG LENGTH OF BAR  
MINIMUM YIELD STRENGTH PER TABLE  
MINIMUM ULTIMATE STRENGTH PER TABLE

**SPECIFICATION:** AMS 5643 OR ASTM A584  
**PART NUMBER:** M17-4-**HHHHH-R XXXX** WHERE: HHHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW)  
COND | O.D.  
X-XXX = DIAMETER (IN INCHES)

**C** MATERIAL CONDITION TABLE:

CODE	CONDITION ( OMITTED )	MIN YIELD TENSILE STRENGTH (KSI) ( CONDITION A NOT ACCEPTABLE )	MIN ULTIMATE TENSILE STRENGTH (KSI)
H900	H900	170	190
H925	H925	195	170
H1025	H1025	145	155
H1100	H1100	125	145
H1150	H1150	115	140
COND A	CONDITION A ( SOLUTION TREATED )	105	135

**NOTES:** MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR  
TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS  
MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR  
APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE  
CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND  
SHOULD ALWAYS BE HEAT TREATED

B

**C** EXAMPLES:

PART NUMBER  
PART  
4,000" DIAMETER BAR MINUTS = 150 KSI, MIN YTS = 100 KSI  
M17-4-R4,000  
2,500" DIAMETER BAR H900 CONDITION  
M17-4-H900-R2,500  
3,250" DIAMETER BAR H1025 CONDITION  
M17-4-H1025-R3,250  
0,750" DIAMETER BAR A CONDITION  
M17-4-COND A-R0,750

A

**RELEASED**  
2017-10-31  
By

**APPROVED**

DESIGN DRAWN CHECKED MFG. APPR.	NO CP RA	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. M17-4-R	REV. C SHEET 1 OF 1 TITLE 17-4 SS ROUND BAR SCALE NTS
DE APPROVED DATE 17.09.14			

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GC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPPECTED BY: <b>DA</b>	SIGNED OFF BY: <b>DA</b>
DATE: <b>9-89 MAR 08 2018</b>	

RECORD RESULTS BELOW					
CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.	HR C	HR B	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL	SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING					

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	<i>4047-369468</i>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTENSION REPORT	<input checked="" type="checkbox"/>	
TESTERS LOCATED IN THE QUALITY OFFICE		

MATERIAL CERT RECEIVED: *Y* TIEKNESSES ORDERED: *8.750* QUANTITY RECEIVED: *8.750* SHEET SIZE ORDERED: *8.750* SHEET SIZE RECEIVED: *8.750* QUANTITY INSPECTED: *8.750* SHEET SIZE RECEIVED: *8.750* QUANTITY REJECTED: *0*

MATERIAL: *M17-A-H150A2750* PO / BATCH NO: *Q39183/5049433* DATE: *MAR 08 2018*

## MATERIAL RECEIPT INSPECTION FORM

# SPECIFICATION CONTROL DRAWING

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PURCHASE MATERIAL: 17-4 PH / S17400 / TYPE 630 SS ROUND BAR  
GRAIN MUST BE ALONG LENGTH OF BAR  
MINIMUM YIELD STRENGTH PER TABLE  
MINIMUM ULTIMATE STRENGTH PER TABLE



SPECIFICATION:  
PART NUMBER:  
AMS 5643 OR ASTM A564  
M17-4-HHHHH-R | COND | O.D. WHERE: HHHHH SPECIFIES THE MATERIAL CONDITION (PER TABLE BELOW)



MATERIAL CONDITION TABLE:

CODE	CONDITION ( OMITTED )	MIN. YIELD TENSILE STRENGTH (ksi)	MIN. ULTIMATE TENSILE STRENGTH (ksi)
H900	NONE SPECIFIED ( CONDITION A NOT ACCEPTABLE )	100	150
H925	H900	170	190
H1025	H925	155	170
H1075	H1025	145	155
H1100	H1075	125	145
H1150	H1100	115	140
COND A	( SOLUTION TREATED )	105	135

NOTES: MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR

TENSION OR SHEAR APPLICATIONS IN COLD WEATHER CONDITIONS  
MATERIAL IN H900 AND H925 CONDITION NOT RECOMMENDED FOR

APPLICATIONS WHERE STRESS CORROSION CRACKING IS POSSIBLE  
CONDITION A NOT TO BE USED IN DESIGN FOR FINAL PRODUCT AND  
SHOULD ALWAYS BE HEAT TREATED

B



EXAMPLES:

PART 4,000" DIAMETER BAR MINUTTS = 150 KSI, MIN YTS = 100 KSI	PART NUMBER M17-4-R4,000
2,500" DIAMETER BAR H900 CONDITION	M17-4-H900-R2,500
3,250" DIAMETER BAR H1025 CONDITION	M17-4-H1025-R3,250
0,750" DIAMETER BAR A CONDITION	M17-4-COND A-R0,750

A

APPROVED

C	ADDED MATERIAL CONDITION (S17400/TYPE 630 ADDED TO PURCHASE MATERIAL (2N1D8-1), ADD) A564 SPEC (C8-1). REF PAR 08-020A	NO	17.09.14
B	REF PAR 08-020A	VS	10.05.20
A	NEW ISSUE	CP	05.03.16
REV.	DESCRIPTION	BY	DATE
DESIGN	NO	DART AEROSPACE LTD	
DRAWN	NO	HAWKESBURY, ONTARIO, CANADA	
CHECKED	NO	DRAWING NO.	
MFG. APPR.	RA	REV. C	
APPROVED	WM	SHEET 1 OF 1	
DE APPR.	CP	SCALE	
DATE	17.09.14	NTS	

RELEASED **D** 2017-10-31 **Wm**

M17-4-R

17-4 SS ROUND BAR

17.09.14

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QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS	SIGNED OFF BY:
		DATE: 9-89 MAR 08 2018

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER

TESTERS LOCATED IN THE QUALITY OFFICE

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	Y/N
CORRECT FINISH	<input checked="" type="checkbox"/>	Y/N
CORROSION	<input checked="" type="checkbox"/>	Y/N
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	Y/N
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	Y/N
CORRECT THICKNESS	<input checked="" type="checkbox"/>	Y/N
PHOTO REQUIRED	<input checked="" type="checkbox"/>	Y/N
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	Y/N
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	Y/N
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	Y/N
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	Y/N
SIZE OF TEST SAMPLE		
HARDNESS / DUROMETER READING		

MATERIAL CERT REC'D: YES DATE: MAR 08 2018  
 QUANTITY RECEIVED: 1.375 SHEET SIZE ORDERED: 1.375  
 QUANTITY INSPECTED: 1.375 SHEET SIZE RECEIVED: 1.375  
 THICKNESS RECEIVED: 1.375 QUANTITY REJECTED: 0  
 THICKNESS ORDERED: 1.375 SHEET SIZE RECEIVED: 1.375  
 PO / BATCH NO.: Q39125/SQ49431

## MATERIAL RECEIPT INSPECTION FORM

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Copyright © 2005 by DART AEROSPACE LTD						
<b>RELEASED</b> <span style="margin-left: 20px;">05-05-25</span>						
EG. $\frac{7}{8}$ " ROUND BAR = M4140H-R0.875						
PART NUMBER: M4140H-R WHERE D.DD = DIAMETER IN INCHES D.DD						
MINIMUM YIELD TENSILE STRENGTH = 180 KSI MINIMUM ALTITUDE TENSILE STRENGTH = 160 KSI UNS # - G41400						
-A193-D3-GRADE-B7 / -A29-03 / -A322-91 OA						
PER AISI 4140 OR ASTM A304-02 / -A-434-BC /						
PURCHASE MATERIAL: AISI 4140H ROUND BAR						
						
DESIGN	DRAWN BY	APPROVED	DRAWING NO.	TITLE	DATE	SCALE
DART AEROSPACE LTD	HAWKESBURY, ONTARIO, CANADA	M4140H-R	R0.875	A140 ROUND BAR	05.02.21	NEW ISSUE
SHEET 1 OF 1						

**DART**

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GC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS	SIGNED OFF BY:
		DATE: 9-8 MAR 08 2018

RECORD RESULTS BELOW					
CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.	HR C	HR B	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL	SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING					

*Testers located in the Quality Office*

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
PHOTOREF# TO LINK CERT	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
TYPE OF MATERIAL	RECORD RESULTS BELOW	
HARDNESS / DUROMETER READING		

MATERIAL CERT REC'D: *W0.085* DATE: *MAR 08 2018*  
 QUANTITY RECEIVED: *123* SHEET SIZE ORDERED: *W.0.085*  
 QUANTITY INSPECTED: *123* SHEET SIZE RECEIVED: *W.0.085*  
 THICKNESS RECEIVED: *W.0.085* SHEET SIZE RECEIVED: *W.0.085*  
 MATERIAL CERT REC'D: *W0.085* DATE: *MAR 08 2018*  
 QUANTITY RECEIVED: *123* SHEET SIZE ORDERED: *W.0.085*  
 QUANTITY INSPECTED: *123* SHEET SIZE RECEIVED: *W.0.085*  
 THICKNESS RECEIVED: *W.0.085* SHEET SIZE RECEIVED: *W.0.085*

## MATERIAL RECEIPT INSPECTION FORM

## SPECIFICATION CONTROL DRAWING

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW RELEASE	17-855	17.09.06	VM	WM
B	TYPE 5 ADDED, TEMPLATE UPDATED	17-790	17.12.13	VM	ML

PURCHASE MATERIAL: ASTM A513 TYPE 5 (1020/1026) SEAMLESS ALLOY STEEL ROUND TUBING (DOM)

SPECIFICATION:

ASTM A513 TYPE 5

PART NUMBER:

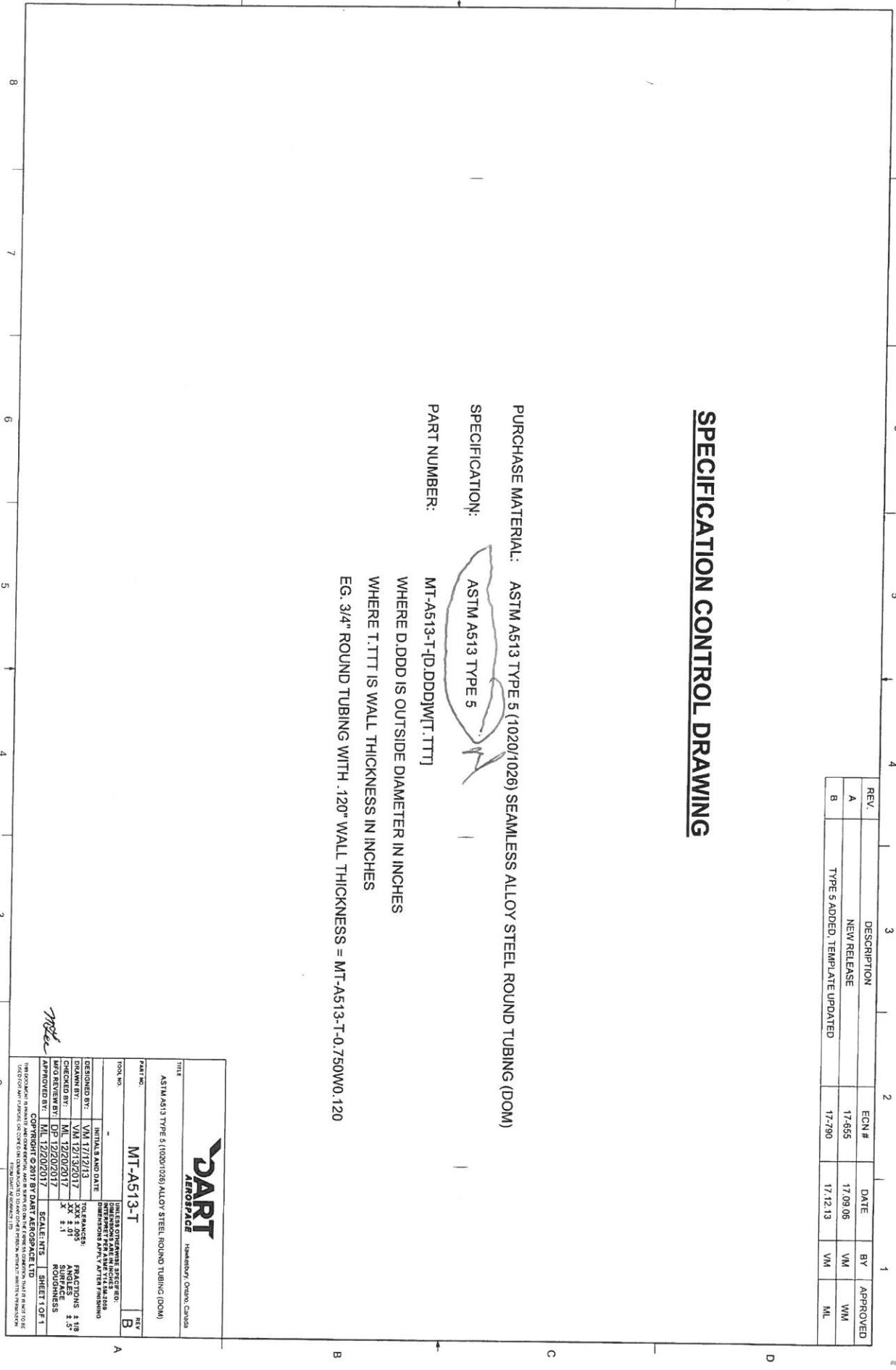
MT-A513-T-D.DDDWWT.TTT

WHERE D.DDD IS OUTSIDE DIAMETER IN INCHES

WHERE T.TTT IS WALL THICKNESS IN INCHES

EG. 3/4" ROUND TUBING WITH .120" WALL THICKNESS = MT-A513-T-0.750W0.120

<b>DART</b> <b>AEROSPACE</b>	
Montgomery, Ontario, Canada	
TITLE	
ASTM A513 TYPE 5 (1020/1026) ALLOY STEEL ROUND TUBING (DOM)	
PART NO.	MT-A513-T
TOOL NO.	
DESIGNED BY:	VIA4 17/12/13
DRAWN BY:	VIA4 12/13/2017
CHECKED BY:	X
MFG REVIEW BY:	X
APPROVED BY:	ML 12/20/2017
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QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS	SIGNED OFF BY:
		DATE: MAR 08 2010

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.					
RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
	SIZE OF TEST SAMPLE				
	HARDNESS / DUROMETER READING				
TESTERS LOCATED IN THE QUALITY OFFICE					

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE AN ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
EXTRUSION REPORT	<input checked="" type="checkbox"/>	

MATERIAL CERT REC'D: YES  
THICKNESS RECEIVED: 1.250  
THICKNESS ORDERED: 1.250  
QUANTITY RECEIVED: 6  
QUANTITY ORDERED: 6  
SHEET SIZE RECEIVED: 6  
SHEET SIZE ORDERED: 6  
QUANTITY INSPECTED: 6  
QUANTITY REJECTED: 0  
SHEET SIZE RECEIVED: 6  
SHEET SIZE ORDERED: 6  
MATERIAL CERT REC'D: YES  
THICKNESS RECEIVED: 1.250  
THICKNESS ORDERED: 1.250  
QUANTITY RECEIVED: 6  
QUANTITY ORDERED: 6  
SHEET SIZE RECEIVED: 6  
SHEET SIZE ORDERED: 6  
QUANTITY INSPECTED: 6  
QUANTITY REJECTED: 0  
SHEET SIZE RECEIVED: 6  
SHEET SIZE ORDERED: 6

MATERIAL: MF-4140-B-1-250X2.000 PO / BATCH NO: 039123/5049429 DATE: MAR 08 2010



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ENGINEERING SIGNOFF (if required)		QC 18 INSPECTION
DAS		INSPECTED BY: <b>11</b>
SIGNED OFF BY:		DATE: <b>9-89 MAR 08 2018</b>
DATE:		

CUT SAMPLE PIECE OF MATERIAL AND REFORMAT A HARDNESS CHECK.					RECORD RESULTS BELOW		
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER	SIZE OF TEST SAMPLE	HARDNESS / DUROMETER READING

TESTS LOCATED IN THE QUALITY OFFICE

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	Y (N)
CORRECT FINISH	<input checked="" type="checkbox"/>	N
CORROSION	<input checked="" type="checkbox"/>	Y (N)
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N
CORRECT MATERIAL PER-M-DRAWING	<input checked="" type="checkbox"/>	A574n A829
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N
PHOTO REQUIRED	<input checked="" type="checkbox"/>	Y (N)
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	Y (N) <del>44549</del>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	Y (N)
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	Y (N)
DOES THIS MATERIAL REQUIRE AN NCR	<input checked="" type="checkbox"/>	Y (N)
EXTRUSION REPORT	<input checked="" type="checkbox"/>	

MATERIAL: M-4140-B-1250X1.500 DATE: MAR 08 2009  
PO / BATCH NO. Q39125 / 83452828

## MATERIAL RECEIPT INSPECTION FORM

## SPECIFICATION CONTROL DRAWING

ITEM #	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	V/M	M/L

PURCHASE MATERIAL: AISI 4140 / 4142 STEEL SHEET OR PLATE

MAXIMUM ROCKWELL C = 32 R<sub>c</sub>

#### **SPECIFICATION:**

B&BT NUMBER:

W-4-140-S-1111X W.WWW  
 WHERE "T.TTT" = THICKNESS IN INCHES  
 WHERE "W.WWW" = WIDTH IN INCHES (C)

EX 00633" THICK SHEET - MT 1110 S 0003

EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18-2-13	VM	ML

**SPECIFICATION CONTROL DRAWING**

B      C      D

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
 MINIMUM ROCKWELL C = 28 Rc  
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION:   
 ASTM A829, AMS 6395

PART NUMBER: MT-4140-S-[T].[TTT]X[W.WWW]  
 WHERE "T.[TTT]" = THICKNESS  
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
 EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

PART NO.		MT-4140-S	
TCO. NO.		INITIALS AND DATE	
DESIGNED BY:		VM/21/13/2018	
DRAWN BY:		VM/02/13/2018	
CHECKED BY:		XXX / 005	
AMG REVIEW BY:		XX / .01	
APPROVED BY:		XX / .1	
<b>COPIES</b> <b>SIX</b> <b>ONE</b> <b>DRAFT</b> <b>ONE</b> <b>PRINT</b> <b>ONE</b> <b>ONE</b> <b>ONE</b> <b>ONE</b> <b>ONE</b> <b>ONE</b> <small>This document is the property of DART Aerospace Inc. It is to be used only by the individual or company named on the first page. It is not to be copied, reproduced, or otherwise communicated to any other party without written permission.</small>			
<small>ALL DRAWINGS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.          THIS DRAWING IS NOT A CONTRACT DRAWING. IT IS FOR INFORMATION ONLY.          DIMENSIONS ARE IN INCHES UNLESS INDICATED OTHERWISE.          DIMENSIONS APPLY AFTER FINISHING.</small>			
		A	
		REV. 1	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

GC 18 INSPECTION		ENGINEERING SIGN OFF (if required)
INSPPECTED BY:	DAS	SIGNED OFF BY:
		DATE: 9-BMAR 08 2018

RECORD RESULTS BELOW					
CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.					
TYPE OF MATERIAL	SIZE OF TEST SAMPLE				
	HR C	HR B	DUR A	DUR D	WEBSTER
	HARDNESS / DUROMETER READING				

TESTERS LOCATED IN THE QUALITY OFFICE

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	
CORRECT MATERIAL PER DRAWING	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	
ASTM A839		

MATERIAL CERT RECEIVED:	YES	DATE: MAR 08 2018
THICKNESS ORDERED:	1.000	THICKNESS RECEIVED:
QUANTITY RECEIVED:	6	QUANTITY INSPECTED:
PO / BATCH NO.: 039125/504927		QUANTITY REJECTED:
MATERIAL:		SHET SIZE RECEIVED:
THICKNESS ORDERED:	1.000	SHET SIZE RECEIVED:
QUANTITY RECEIVED:	6	SHET SIZE ORDERED:
DATE:		SHET SIZE RECEIVED:

# SPECIFICATION CONTROL DRAWING

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	1B-544	18.2.13	VM	ML

PURCHASE MATERIAL: AISI 4140 / 4142 STEEL SHEET OR PLATE

MINIMUM ROCKWELL C = 28 Rc  
MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION: *(Handwritten)*  
ASTM A829, AMS 6395

MT-4140-S-[T][TT]X[W][WWW]  
WHERE "T" = THICKNESS IN INCHES  
WHERE "W" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

A	B	C	D	E	F	G	H	I	J	K	L
8	7	6	5	4	3	2	1				
A	B	C	D	E	F	G	H	I	J	K	L
<b>DART</b> <b>AEROSPACE</b> Hamilton, Ontario, Canada											
<b>TITLE</b> <b>AISI 4140 / 4142 STEEL SHEET OR PLATE</b>											
<b>PART NO.</b> <b>MT-4140-S</b> <b>REV.</b> <b>A</b>											
<b>TOOL NO.</b> <b>-</b> <b>INITIALS AND DATE</b> <b>DIMENSIONS ARE IN INCHES</b> <b>DESIGNED BY:</b> <b>VAM 2/13/2018</b> <b>UNLESS OTHERWISE SPECIFIED</b> <b>DRAWN BY:</b> <b>VAM 02/13/2018</b> <b>DIMENSIONS ARE IN INCHES</b> <b>CHECKED BY:</b> <b>VAM 02/13/2018</b> <b>FRACTIONS <math>\frac{1}{16}</math>, <math>\frac{1}{32}</math>, <math>\frac{1}{64}</math></b> <b>MFG REVIEW BY:</b> <b>DD 02/13/2018</b> <b>ANGLE <math>\pm .01^\circ</math></b> <b>APPROVED BY:</b> <b>ML 02/14/2018</b> <b>SURFACE <math>\pm .5</math></b> <b>CONTRACTOR:</b> <b>DART AEROSPACE LTD</b> <b>SCALE: NTS</b> <b>ROUGENESS</b> <b>NOTE:</b> <b>ALL DRAWINGS ARE IN INCHES</b> <b>SHET 1 OF 1</b>											
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